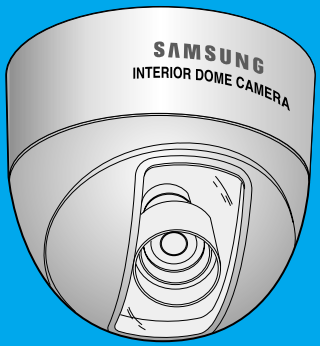
SAMSUNG TECHWIN

# INTERIOR DOME CAMERA

## INSTRUCTION MANUAL

## SID-41C/21C SERIES




SAMSUNG CCD CAMERA

The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**INFORMATION -** This equipment has been tested and found to comply with limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.
Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will required to correct the interference at his own expense.

**WARNING -** Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

**CAUTION :** To prevent electric shock and risk of fire hazards:
- ◆ Do NOT use other than specified power source.
- ◆ Do NOT expose this appliance to rain or moisture.

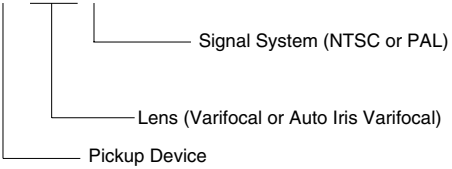
This installation should be made by a qualified service person and should conform to all local codes.

*Thank you for purchasing a SAMSUNG CCD CAMERA.*
*Before operating the camera, confirm the camera model and proper input power voltage. In order that you can understand this manual thoroughly, we'll introduce our model description.*

■SID-41C Model Series (410,000 Pixels)
SID-41CVA
SID-41CV
SID-41C

■SID-21C Model Series (270,000 Pixels)
SID-21CV
SID-21C

■Model Description
SID-41C X X X
SID-21C X X X




○ Pickup Device
41C → 410,000 Pixels Color CCD
21C → 270,000 Pixels Color CCD

○ Lens Type
V → Varifocal Lens
VA → Auto Iris Varifocal Lens

○ Signal System
N → NTSC
P → PAL

# Contents


**Features** ..... 5

**Precautions** ..... 6

**Getting to Know Your Camera** ..... 8
- Front ..... 8
- Back ..... 10
- Accessories ..... 11

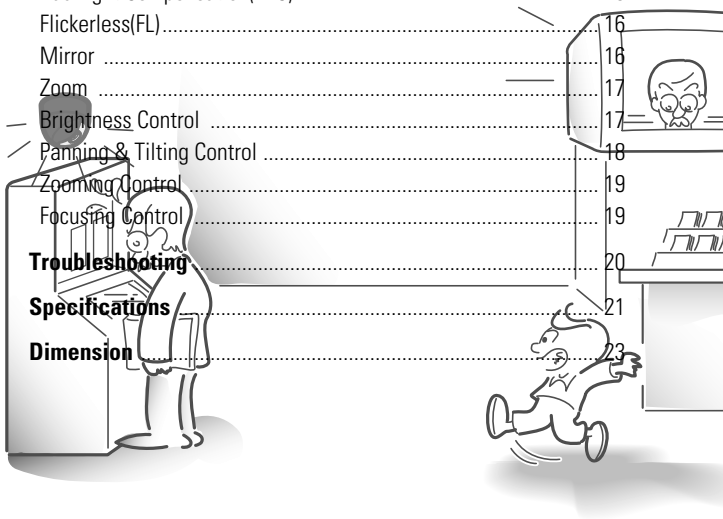
**Installation** ..... 12

**Configuration of Dip-Switches** ..... 14
- White Balance Conrol(ATW/AWC) ..... 14
- Backlight Compensation(BLC) ..... 15
- Flickerless(FL) ..... 16
- Mirror ..... 16
- Zoom ..... 17
- Brightness Control ..... 17
- Panning & Tilting Control ..... 18
- Zooming Control ..... 19
- Focusing Control ..... 19

**Troubleshooting** ..... 20

**Specifications** ..... 21

**Dimension** ..... 23

# Features

## High Resolution

The horizontal resolution of 480 TV lines can be achieved by using a high density CCD having effective 410,000 pixels, which provides clean, noiseless and reliable pictures.
(SID-21C series have 270,000 pixels and can achieve 330 TV lines.)

## Zoom up to x2.3

Up to 2.3 optical zoom is possible.
(Except SID-41C/21C Models.)

## Functional Selection Switches

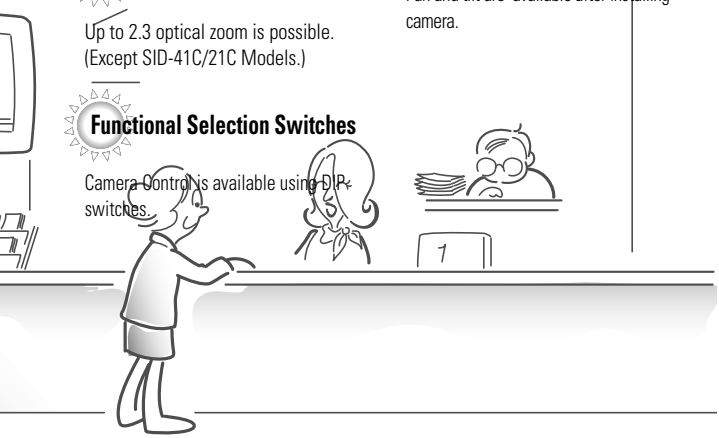
Camera Control is available using D.I.P. switches.

## Powerful Back Light Compensation

The BLC technology allows the camera to obtain the clear picture, the finest detail and perfect light contrast al though there is strong light back of the subject.

## Pan and Tilt

Pan and tilt are available after installing camera.



# Precautions

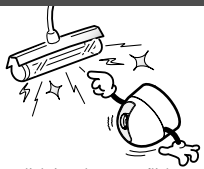
**Do not install the camera in extreme temperature conditions.**

Do use the camera under conditions where temperatures are within -10℃ to 50℃. Especially be careful for ventilation under high temperature.

**Do not install or use the camera in an environment where the humidity is high.**

It can cause the image quality to be poor.

**Do not install the camera under unstable lighting conditions.**



Severe lighting change or flicker can cause the camera to work improperly.

**Never use the camera close to a gas or oil leak.**

It can cause malfunctions to occur.

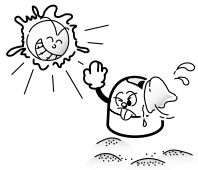
**Do not disassemble the camera.**

There are no user-serviceable parts inside it.

**Do not drop the camera or subject them to physical shocks.**

It can cause malfunctions to occur.

## Never keep the camera face to strong light directly.



It can damage the CCD.

## Do not touch the front glass of the camera.

It is one of the most important parts of camera.
Be careful not to be stained by fingerprint.

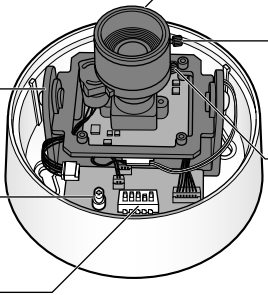
## Do not expose the camera to rain or spill beverage on it.

If it gets wet, wipe it dry immediately.
Liquids can contain minerals that corrode the electronic components.

**Notes**

- If the camera is exposed to spotlight or object reflecting the strong light, smear or blooming may occur.
- Please check the power whether it satisfies the normal specification before connecting the camera. (see page 13)

## Front (SID-41CVA Model)



**Tilt Adjustment**
You can adjust up and down the camera(30°~90°).

**Focal Length Adjustment Lever**
After Adjusting Focal Length by lever, fix it.

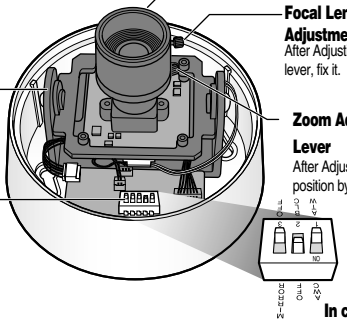
**Zoom Adjustment Lever**
After Adjusting Zoom position by lever, fix it.

**Pan Adjustment**
You can rotate the lens from 0° to 340°.

**Brightness Adjustment**
You can adjust Brightness.

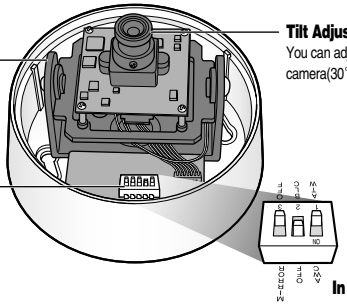
**Functional Selection Switches**
You can control the camera Using DIP Switches.

## Front (SID-41CV/21CV Model)


Tilt Adjustment
You can adjust up and down the camera(30°~90°).
Focal Length Adjustment Lever
After Adjusting Focal Length by lever, fix it.
Pan Adjustment
You can rotate the lens from 0° to 340° .
Zoom Adjustment Lever
After Adjusting Zoom position by lever, fix it.
Functional Selection Switches
You can control the camera Using DIP Switches.

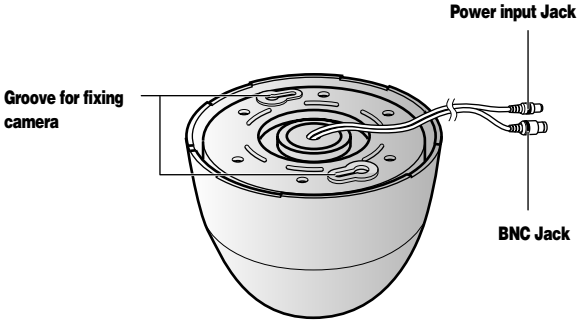
**In case of SID-21CV**

## Front (SID-41C/21C Model)


Tilt Adjustment
You can adjust up and down the camera(30°~90°).
Pan Adjustment
You can rotate the lens from 0° to 340° .
Functional Selection Switches
You can control the camera Using DIP Switches.

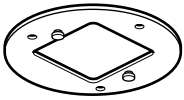
**In case of SID-21C**

## Back



## Accessories

User Manual



Bracket

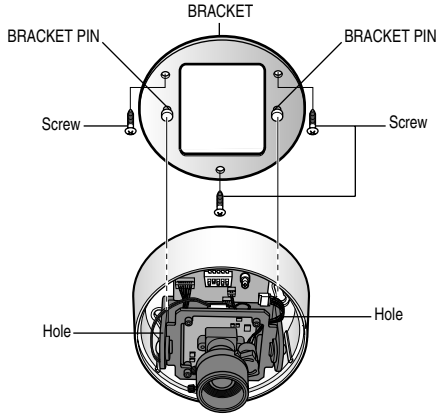
M4 Taping Screw 3EA

## Installing Camera

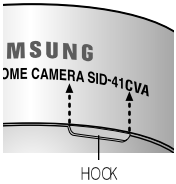
① Fix the Bracket to suitable position where the camera will be installed.

② After inserting the Bracket pin to camera hole, rotate the camera right.

③ After adjusting the camera, cover the Dome-Cover.



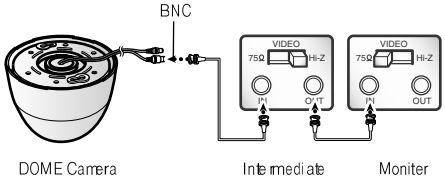

※ If you want to separate the Dome-Cover, Position the Hook between printed characters 'SID-41CVA' (model name) following the illustration. ( ※There are several kinds of model names.)



## Connection to Monitor

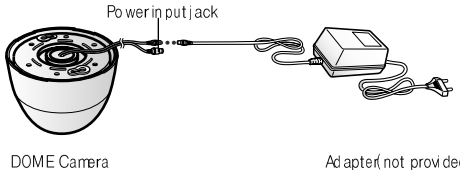
Connect the VIDEO-OUT jack to the VIDEO-IN jack of monitor.

- As a connecting method varies according to instruments, refer to the manual supplied with the instrument.
- Connect the cable after power is turned off.
- Set the 75 Ω/Hi-Z selection switch. If it is a intermediate device, switch it to Hi-z and if it is final device, switch it to 75 Ω.
  (Please refer to the Monitor Manual.)

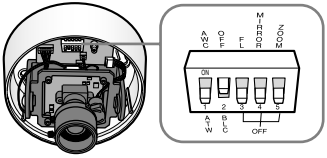



## Connecting to Power

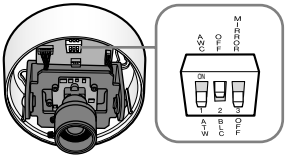
- Connect the adapter to the power input connector as shown in the figure below. Use a DC 12V and 300mA adapter.
  (The Adapter is not provided with the Dome Camera.)



Use the DIP switches inside of the camera for selecting functions.




(SID-41 Series)




(SID-21 Series)

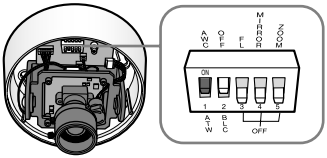
**Default setting**

## White Balance Control (ATW/AWC)

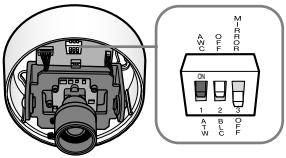
Select the desired control mode using ATW/AWC switch.

① ATW(Auto Tracing White balance) : The camera automatically control the white balance in any environment.

② AWC(Auto White balance Control) : The white balance is automatically adjusted in a specific environment.




(SID-41 Series)




(SID-21 Series)

Note

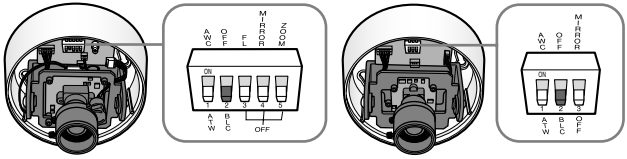
· In order to obtain the finest image, switch it from ATW to AWC while the camera focuses white paper. If the environment including lighting source is changed, you have to adjust the white balance again.

## Backlight Compensation (BLC)

Switch it to BLC to obtain the clear picture, the finest detail and perfect light contrast althongh there is strong backlight.

① BLC ON : When the image is in front of strong background lighting, your camera allows you to get the clear image.

② BLC OFF : Deactivate BLC control feature.




(SID-41Series) (SID-21 Series)

Note

· To use BLC more effective, Adjust the subject to be over 20% of full screen.

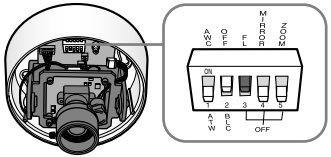
· Switch to BLC OFF when the background has strong white.

## Flickerless (FL) (SID-41 Series Only)

Select the desired control mode using Flicker switch.

① FL ON : You can select FL (Flickerless) ON.

② FL OFF : You can select FL (Flickerless) OFF.




(SID-41 Series)

Note

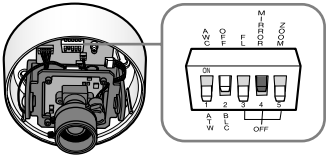
· In case of selecting FL OFF, you can obtain the well-brightened image by the built-in Iris Lens (SID-41CVA).

## Mirror

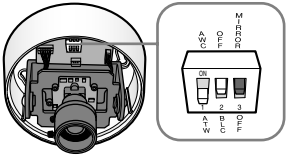
When the mirror function, it changes from right position of image to left.

① Mirror ON : It makes a reverse turn vertically.

② Mirror OFF : Deactivate Mirror control feature.




(SID-41 Series)




(SID-21 Series)

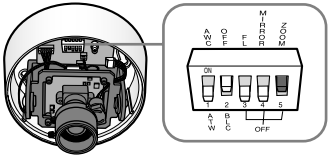
## Zoom (SID-41 Series Only)

If you choose 'Zoom' function, you can obtain altwice enlarged image.

(2X Digital Zoom)

① Zoom ON : Activate Zoom feature.

② Zoom OFF : Deactivate Zoom feature.




(SID-41 Series)

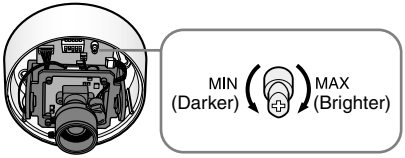
Note

• When Digital zoom activated, it can cause the image quality to be poor

## Brightness Control (SID-41CVA Only)

Adjust the brightness level by rotating the volume.

① To make it brighter, turn the volume clockwise.
② To make it darker, turn the volume counter clockwise.




Note

· There is no Brightness control VR on SID-41CV/41C/21CV/21C.

## Panning & Tilting Control

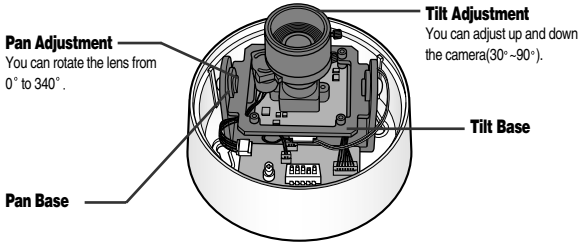
You can adjust the Panning and Tilting angle freely.
(Panning angle: 0° to 340°, Tilting angle: 30°~90°)

① **Adjustment Panning angle**

After attaching the dome camera to ceiling, adjust the panning angle for better monitoring area by rotating the Pan Base.
The panning angle can be adjusted to 0° from 340° freely.

② **Adjustment Tilting angle**

After attaching the dome camera to ceiling, adjust the tilting angle for better monitoring area by rotating the Tilt Base.
The tilting angle can be adjusted to 30° from 90° freely.
(based the ceiling surface)


Tilt Adjustment
You can adjust up and down the camera(30°~90°).
Pan Adjustment
You can rotate the lens from 0° to 340°.
Tilt Base
Pan Base

Note

1. In case of adjusting the tilting, do not take the lens for preventing physical shocks. Please take the Tilt Base.
2. This dome camera is designed to installing on the cailing.
   In case of need to use camera on the wall, because of the angel of attaching, the image can be turned upside down.
   In this case, please installing the camera after purchasing an installing angle.

## Zooming Control (SID-41CVA/41CV/21CV)

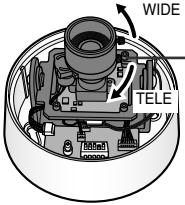
Adjust the magnification of monitoring pictures by rotate Zoom Adjustment Lever.

① **TELE**

To zoom in, rotate the Zoom Adjustment lever clockwise.

② **WIDE**

To zoom out, rotate the Zoom Adjustment lever counterclockwise.

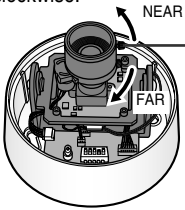



**Zoom Adjustment Lever (T↔W)**
After Adjusting Zoom position by lever, fix it.

## Focusing Control (SID-41CVA/41CV/21CV)

Adjust the focusing the pictures by rotate Focal Length Adjustment Lever.

· To viewing clear pictures, rotate the Focal Length Adjustment Lever clockwise or counterclockwise.




**Focal Length Adjustment Lever (∞↔N)**
After Adjusting Focal Length by lever, fix it.

Note

· For adjusting focus and zooming easily, adjust the zoom scale first and adjust the focus later.

# Troubleshooting

If you have trouble operating your camera, refer to the following. If the guidelines do not enable you to solve the problem, contact an authorized technician.

**■ The image on the screen is dim.**

- Check if the lens are stained. If dirty, clean the lens with soft, clean cloth.
- The image is dimmer at night than daytime.
  If the focus is not right, adjust it at daytime.

**■ The contrast on the screen is too weak.**

- Adjust the contrast feature of the monitor.
- If the camera is exposed under too strong light, change the camera position.
- Adjust the lens BACK FOCUS again.

**■ The image on the screen is dark.**

- Check brightness level(Volume Controller). If dark turn clockwise.

**■ The camera is not work properly, and the surface of the camera case is hot.**

- Check that you have connected the camera to a proper power(DC12V 300mA).

**■ Background is too bright.**

- Deactivate BLC control feature.

# Specification

| ITEM | | SID-41C Series | | |
|---|---|---|---|---|
| | | SID-41CVA | SID-41CV | SID-41C |
| Input Power | | DC 12V (DC 10V~DC 15V) | | |
| Power Consumption | | Max 1.7W (DC12V) | | |
| Ambient Temperature & Humidity | | -10°C~+50°C (Recommanded ; 0°C~+40°C)/20%~60% | | |
| Dimension | | ø110mm(W) x 90mm(H) | | |
| Weihgt | | 250g (Except Adaptor) | | |
| Pickup Device | | 1/3", 410K Pixels | | |
| Gamma Correction | | 0.45 | | |
| Video Output | | VBS 1.0$V_{P-P}$ Composite 75 Ω | | |
| Min. illumination | | 0.3 Lux at F1.2(30IRE) | | |
| Synchronizaion | | INT | | |
| S/N Ratio | | 50dB | | |
| Resolution | | 480 TV Lines(Min.) | | |
| Lens (Built-in) | | AUTO IRIS/VARIFOCAL LENS Focal Length 4.0~9.0mm F1.6~F2.4 | VARIFOCAL LENS Focal Length 4.0~9.0mm F1.6~F2.4 | FIXED LENS 92° Focal Length 3.7mm F2.0 |
| White Balance | | ATW/AWC Selectable | | |
| ESC | | 1/60(1/50) Sec | 1/60(1/50)~1/120,000 Sec | |
| Mirror | | ON/OFF Selectable | | |
| Zoom | | ON/OFF Selectable | | |
| BLC | | BLC ON/OFF Selectable | | |
| Brightness Control | | Variable resistor | – | |
| Flickerless | | ON/OFF Selectable | | |
| Video Output Jack | | BNC Connector | | |
| Power input | | ø5.5 JACK | | |
| Lens Angle | Horizontal | 71.0°~31.6° | | – |
| | Vertical | 51.8°~23.6° | | – |
| | Diagonal | 92.6°~39.4° | | 92° |
| Monitoring Angle | Pan | Manual 0°~340° | | |
| | Tilt | Manual 30°~90° | | |

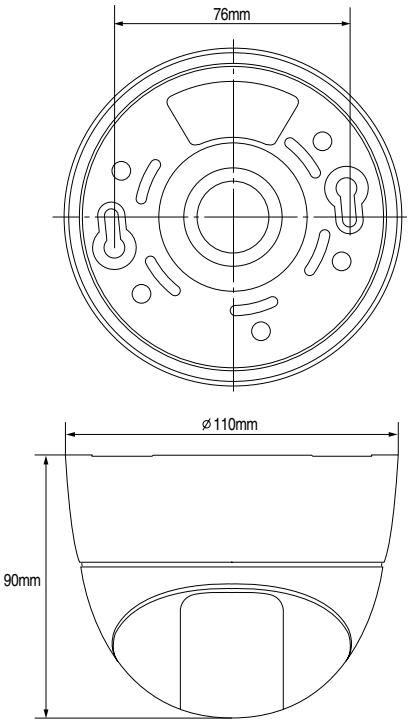
※Design and specifications are subject to change without notice.

# Specification

| ITEM | | SID-21C Series | |
|---|---|---|---|
| | | SID-21CV | SID-21C |
| Input Power | | DC 12V (DC 10V~DC 15V) | |
| Power Consumption | | Max 1.0W (DC12V) | |
| Ambient Temperature & Humidity | | -10°C~+50°C (Recommanded ; 0°C~+40°C)/20%~60% | |
| Dimension | | ø110mm(W) x 90mm(H) | |
| Weihgt | | 250g (Except Adaptor) | |
| Pickup Device | | 1/4", 270K Pixels | |
| Gamma Correction | | 0.45 | |
| Video Output | | VBS 1.0$V_{P-P}$ Composite 75Ω | |
| Min. Scene | | 0.3 Lux at F1.2(30IRE) | |
| Synchronizaion | | INT | |
| S/N Ratio | | 50dB | |
| Resolution | | 330 TV Lines (Min.) | |
| Lens (Built-in) | | VARIFOCAL LENS<br>Focal Length 4.0~9.0mm<br>F2.6~F3.4 | FIXED LENS 92°<br>Focal Length 3.7mm<br>F2.0 |
| White Balance | | ATW/AWC Selectable | |
| BLC | | BLC ON/OFF Selectable | |
| ESC | | 1/60(1/50)~1/120,000 Sec | |
| Mirror | | ON/OFF Selectable | |
| Video Output Jack | | BNC Connector | |
| Power input | | ø5.5 JACK | |
| Lens Angle | Horizontal | 71.0°~31.6° | – |
| | Vertical | 51.8°~23.6° | – |
| | Diagonal | 92.6°~39.4° | 92° |
| Monitoring Angle | Pan | Manual 0°~340° | |
| | Tilt | Manual 30°~90° | |

※Design and specifications are subject to change without notice.

# Dimension



# DECLARATION OF CONFORMITY

| | |
|---|---|
| Application of Council Directive(s) | 89/336/EEC |
| Manufacturer's Name | SAMSUNG TECHWIN CO., LTD |
| Manufacturer's Address | SAMSUNG TECHWIN CO., LTD<br>42, SUNGJU-DONG CHANGWON-CITY,<br>KYUNGNAM, KOREA, 641-120 |
| European Representative Name | |
| European Representative Address | |
| Equipment Type/Environment | INTERIOR DOME CAMERA |
| Model Name | SID-41CVAP/SID-41CVP/SID-41CP<br>SID-21CVP/SID-21CP |
| Beginning Serial NO. | S3030001 |
| Year of Manufacture | 2003 |
| Conformance to | EN 50081-1<br>EN 50130-4 |

We, the undersigned, hereby declare that the equipment specified above conforms to the above Directive(s).

| Manufacturer | SAMSUNG TECHWIN CO., LTD | Legal Representative in Europe |
|---|---|---|
| Signature | Young Taek, SON | Signature |
| Full Name | YOUNG TAEK SON | Full Name |
| Position | QUALITY CONTROL MANAGER | Position |
| Place | CHANGWON, KOREA | Place |
| Date | 2003. 03. 18 | Date |

[ SALES NETWORK ]

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